



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION

## NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
T (786) 315-2590 F (786) 315-2599  
[www.miamidade.gov/economy](http://www.miamidade.gov/economy)

ES Windows, LLC  
3550 NW 49 Street  
Miami, FL 33142

### SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

### DESCRIPTION: Series "5000" Outswing Aluminum Casement Window – L. M. I.

**APPROVAL DOCUMENT:** Drawing No. W08-08, titled "S-5000" Alum Outswing Casement Wdw. (L.M.I.), sheets 1 through 10 of 10, dated 01/23/08, with revision E dated 05/06/15, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

### MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, **Barranquilla, Colombia S.A.**, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA# 12-0820.06 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by **Manuel Perez, P.E.**



*MP*  
5/14/15

NOA No. 15-0129.05  
Expiration Date: April 03, 2018  
Approval Date: May 14, 2015  
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

**A. DRAWINGS**

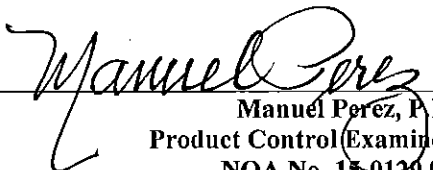
1. Manufacturer's die drawings and sections.  
*(Submitted under NOA No. 11-0419.01)*
2. Drawing No. **W08-08**, titled "S-5100 Alum Outswing Casement Wdw. (L.M.I.)", sheets 1 through 10 of 10, dated 01/23/08, with revision E dated 05/06/15, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

**B. TESTS**

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
3) Water Resistance Test, per FBC, TAS 202-94  
4) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
6) Forced Entry Test, Type "B" Window, Grade 10, per FBC 2411  
3.2.1, TAS 202-94 and per ASTM F 588-07  
along with marked-up drawings and installation diagram of series 5000 outswing aluminum casement window, prepared by Fenestration Testing Laboratory, Inc., Test Reports No. **FTL-6294** and **FTL-6295**, dated 02/25/11 and 03/16/11 respectively, both signed and sealed by Marlin D. Brinson, P.E.  
*(Submitted under NOA No. 11-0419.01)*
2. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94  
2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94  
3) Water Resistance Test, per FBC, TAS 202-94  
4) Large Missile Impact Test per FBC, TAS 201-94  
5) Cyclic Wind Pressure Loading per FBC, TAS 203-94  
6) Forced Entry Test, Type "B" Window, Grade 10, per FBC 2411  
3.2.1, TAS 202-94 and per ASTM F 588-04  
along with marked-up drawings and installation diagram of series 5000 outswing aluminum casement window, prepared by Fenestration Testing Laboratory, Inc., Test Report No. **FTL-5336**, dated 11/16/07, signed and sealed by Carlos S. Rionda, P.E.  
*(Submitted under NOA No.08-0204.05)*

**C. CALCULATIONS**

1. Anchor verification calculations and structural analysis, complying with **FBC-5<sup>th</sup> Edition (2014)**, dated 10/27/14, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
2. Glazing complies with **ASTM E1300-09**

  
Manuel Perez, P.E.  
Product Control Examiner  
NOA No. 15-0129.05

Expiration Date: April 03, 2018  
Approval Date: May 14, 2015

**ES Windows, LLC**

**NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED**

**D. QUALITY ASSURANCE**

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

**E. MATERIAL CERTIFICATIONS**

1. Notice of Acceptance No. **13-0129.27** issued to **E.I. DuPont DeNemours & Co., Inc.** for their "**DuPont Butacite® PVB Interlayer**" dated 04/11/13, expiring on 12/11/16.
2. Notice of Acceptance No. **11-0624.02** issued to **E.I. DuPont DeNemours & Co., Inc.** for their "**DuPont SentryGlas® Interlayer**" dated 08/25/11, expiring on 01/14/17.

**F. STATEMENTS**

1. Statement letter of conformance, complying with **FBC-5<sup>th</sup> Edition (2014)**, and of no financial interest, dated October 27, 2014, issued by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.
2. Laboratory compliance letter for Test Reports No. **FTL-6294** and **FTL-6295**, issued by Fenestration Testing Laboratory, Inc., dated 02/25/11 and 03/16/11 respectively, both signed and sealed by Marlin D. Brinson, P.E.  
*(Submitted under NOA No. 11-0419.01)*
3. Laboratory compliance letter for Test Report No. **FTL-5336**, issued by Fenestration Testing Laboratory, Inc., dated 11/16/07, signed and sealed by Carlos S. Rionda, P.E.  
*(Submitted under NOA No. 08-0204.05)*

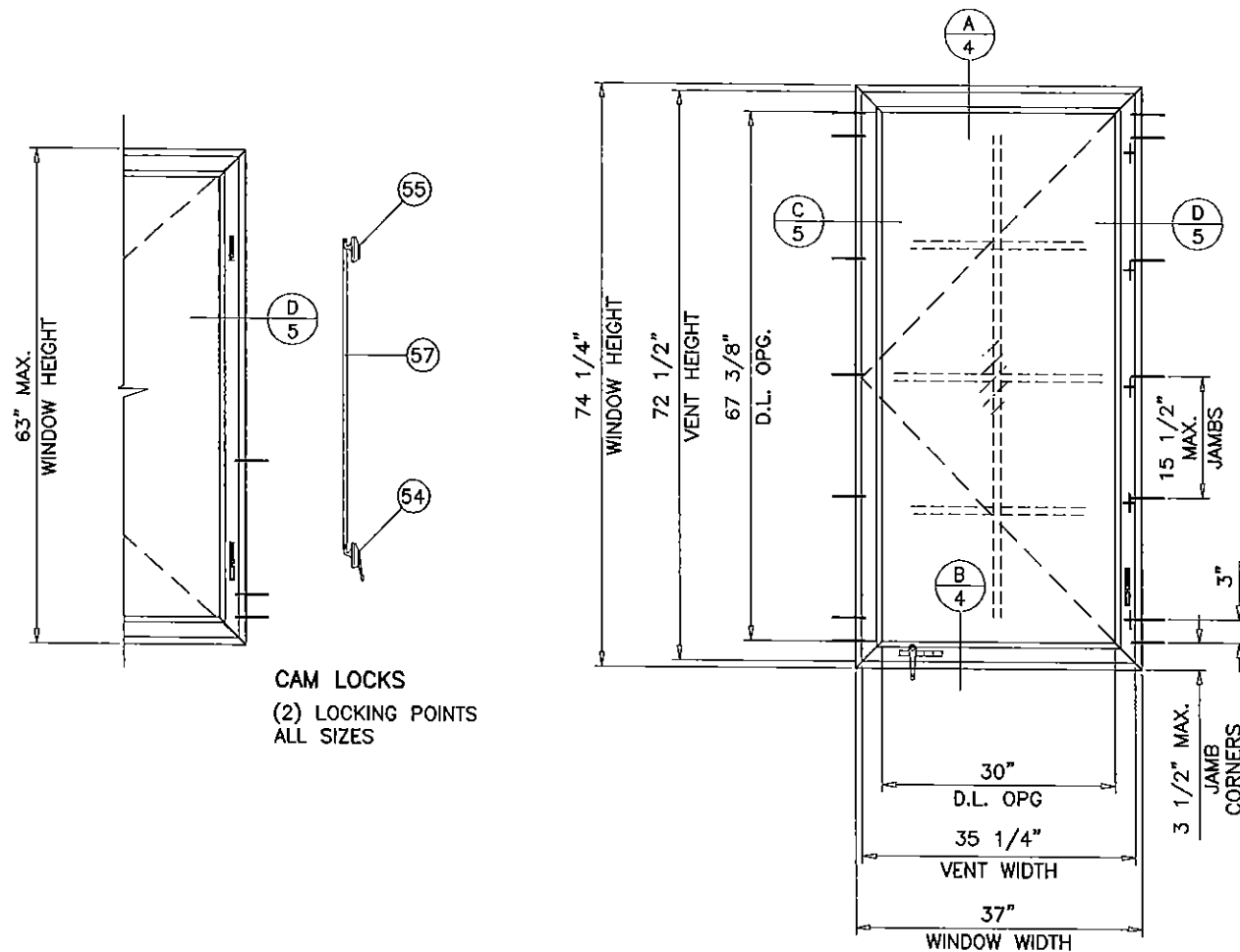
**G. OTHERS**

1. Notice of Acceptance No. **12-0820.06**, issued to ES Windows, LLC, for their Series "S-5000" Outswing Aluminum Casement Window - L.M.I., approved on 11/08/12 and expiring on 04/03/18.



Manuel Pérez, P.E.  
Product Control Examiner  
NOA No. 15-0129.05

Expiration Date: April 03, 2018  
Approval Date: May 14, 2015

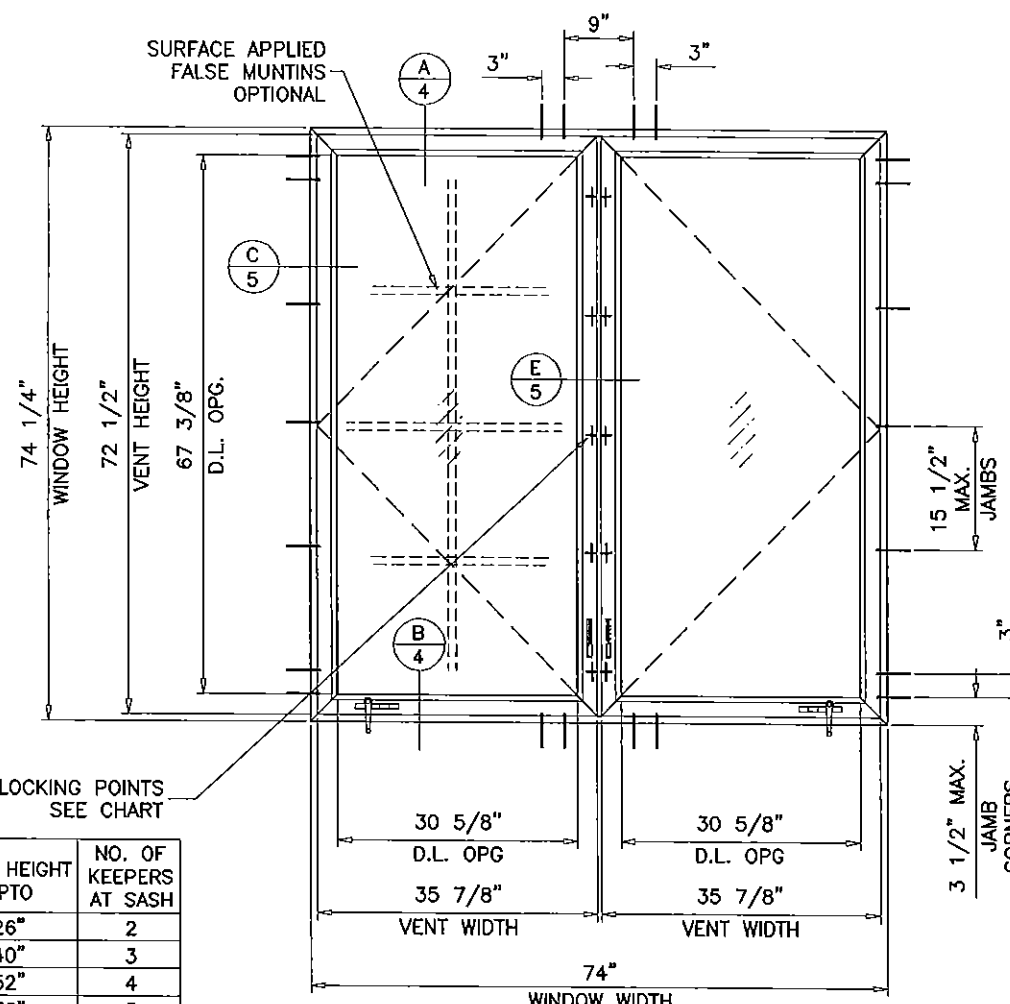


CAM LOCKS  
(2) LOCKING POINTS  
ALL SIZES

MULTI POINT LOCK

WDW. HEIGHT UPTO	NO. OF KEEPERS AT SASH
26"	2
40"	3
52"	4
76"	5

SINGLE (X)



DOUBLE (XX)

TYPICAL ELEVATIONS

## SERIES 5000

### ALUMINUM OUTSWING CASEMENT WINDOW

DESIGN LOAD RATINGS FOR THESE WINDOWS TO BE AS PER CHARTS SHOWN ON SHEET 2.

APPROVAL APPLIES TO SINGLE OR DOUBLE WINDOWS OR SIDE BY SIDE COMBINATIONS OF CASMT/CASMT OR CASEMENT WITH SERIES 5100 FIXED WINDOWS USING MULLIONS IN BETWEEN. LOWER DESIGN PRESSURE FROM CASEMENT WINDOW, FIXED WINDOW OR MULLION CHART WILL APPLY TO ENTIRE SYSTEM.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHORS EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ANCHORING OR LOADING CONDITIONS NOT SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BLDG. CODE.

THESE WINDOWS ARE RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538

MAY 08 2015

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 15-0129-05  
Expiration Date April 3, 2018  
By *Manuel Perez*  
Miami Dade Product Control

**af c**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1235 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL. (305) 264-8100 FAX (305) 262-6978  
COMP-ANL\W08-08ESW

S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)  
**E.S. WINDOWS, LLC**  
3550 N.W. 49 STREET  
MIAMI, FL. 33142  
TEL (305) 638-5151 FAX (305) 638-5158

revisions:	no	date	by	description
	A	02.18.09		UPDATED FOR 2007 FBC
	B	05.20.11		GENERAL REVISION
	C	02.20.12		UPDATED TO 2010 FBC
	D	10.29.14		UPDATED TO 2014 FBC
	E	05.06.15		REV. PER RER COMMENTS

date: 01-23-08  
scale: 1/2"=1'-0"  
dr. by: HAMID  
chk. by:

drawing no.  
**W08-08**

sheet 1 of 10

DESIGN LOAD CAPACITY - PSF FOR ( X ) SIZES									
WINDOW DIMS.		WITH CAM LOCKS		WINDOWS WITH MULTI POINT LOCK					
		GLASS TYPES A, B, C, D, E, F		GLASS TYPE 'A'		GLASS TYPES 'B'		GLASS TYPES 'C', 'D', 'E', 'F'	
		EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
19-1/8"	26"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
26-1/2"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
37"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
42"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
19-1/8"	38-3/8"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
26-1/2"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
37"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
42"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
19-1/8"	50-5/8"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
26-1/2"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
37"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
42"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
19-1/8"	63"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
26-1/2"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
37"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
42"		-	-	-	-	-	-	90.0	90.0
19-1/8"	74-1/4"	-	-	-	-	-	-	90.0	90.0
26-1/2"		-	-	-	-	-	-	90.0	90.0
37"		-	-	-	-	-	-	90.0	90.0
42"		-	-	-	-	-	-	90.0	90.0
19-1/8"	76"	-	-	-	-	-	-	90.0	90.0
26-1/2"		-	-	-	-	-	-	90.0	90.0
36"		-	-	-	-	-	-	85.4	85.4
42"		-	-	-	-	-	-	85.4	85.4
24"	48"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
28"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
32"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
36"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
40"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
42"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
24"	54"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
28"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
32"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
36"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
40"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
42"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
24"	60"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
28"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
32"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
36"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
40"		-	-	-	-	-	-	90.0	90.0
42"		-	-	-	-	-	-	90.0	90.0
24"	66"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
28"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
32"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
36"		-	-	-	-	-	-	90.0	90.0
40"		-	-	-	-	-	-	90.0	90.0
24"	72"	-	-	-	-	-	-	90.0	90.0
28"		-	-	-	-	-	-	90.0	90.0
32"		-	-	-	-	-	-	90.0	90.0
36"		-	-	-	-	-	-	90.0	90.0
42"		-	-	-	-	-	-	90.0	90.0
24"	76"	-	-	-	-	-	-	90.0	90.0
28"		-	-	-	-	-	-	90.0	90.0
32"		-	-	-	-	-	-	90.0	90.0
36"		-	-	-	-	-	-	90.0	90.0
42"		-	-	-	-	-	-	85.4	85.4

DESIGN LOAD CAPACITY - PSF FOR ( XX ) SIZES									
WINDOW DIMS.		WITH CAM LOCKS		WINDOWS WITH MULTI POINT LOCK					
		GLASS TYPES A, B, C, D, E, F		GLASS TYPE 'A'		GLASS TYPES 'B'		GLASS TYPES 'C', 'D', 'E', 'F'	
		EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)	EXT.(+)	INT.(-)
37"	26"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
53-1/8"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
74"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
84"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
37"	38-3/8"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
53-1/8"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
74"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
84"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
37"	50-5/8"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
53-1/8"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
74"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
84"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
37"	63"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
53-1/8"		78.9	78.9	78.9	78.9	78.9	78.9	78.9	78.9
74"		67.7	67.7	67.7	67.7	67.7	67.7	67.7	67.7
84"		-	-	-	-	-	-	60.8	60.8
37"	74-1/4"	-	-	-	-	-	-	63.9	63.9
53-1/8"		-	-	-	-	-	-	47.2	47.2
74"		-	-	-	-	-	-	40.1	40.1
84"		-	-	-	-	-	-	40.1	40.1
37"	76"	-	-	-	-	-	-	59.5	59.5
53-1/8"		-	-	-	-	-	-	43.9	43.9
74"		-	-	-	-	-	-	37.2	37.2
84"		-	-	-	-	-	-	37.2	37.2
48"	48"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
56"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
64"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
72"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
80"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
84"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
48"	54"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
56"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
64"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
72"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
80"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
84"		85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
48"	60"	85.0	85.0	85.0	85.0	90.0	90.0	90.0	90.0
56"		85.0	85.0	85.0	85.0	88.0	88.0	88.0	88.0
64"		79.3	79.3	79.3	79.3	79.3	79.3	79.3	79.3
72"		72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8
80"		-	-	-	-	-	-	68.0	68.0
84"		-	-	-	-	-	-	66.2	66.2
48"	66"	74.4	74.4	74.4	74.4	74.4	74.4	74.4	74.4
56"		65.1	65.1	65.1	65.1	65.1	65.1	65.1	65.1
64"		58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3
72"		-	-	-	-	-	-	53.2	53.2
80"		-	-	-	-	-	-	49.4	49.4
48"	72"	-	-	-	-	-	-	56.8	56.8
56"		-	-	-	-	-	-	49.5	49.5
64"		-	-	-	-	-	-	44.2	44.2
72"		-	-	-	-	-	-	40.2	40.2
80"		-	-	-	-	-	-	40.2	40.2
48"	76"	-	-	-	-	-	-	48.1	48.1
56"		-	-	-	-	-	-	41.8	41.8
64"		-	-	-	-	-	-	37.2	37.2
72"		-	-	-	-	-	-	33.8	33.8
80"		-	-	-	-	-	-	33.8	33.8

NOTE:  
GLASS CAPACITIES ON THIS SHEET ARE  
BASED ON ASTM E1300-09 (3 SEC. GUSTS)  
AND FLORIDA BUILDING COMMISSION  
DECLARATORY STATEMENT DCA05-DEC-219

Engr. JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. # 3538  
MAY 10 8 2015

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 15-0129.05  
Expiration Date April 3, 2018  
By *Manuel Perez*  
Miami Dade Product Control

**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1235 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL (305) 262-6978  
FAX (305) 262-6978  
COMP-ANI\W08-08ESW

S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

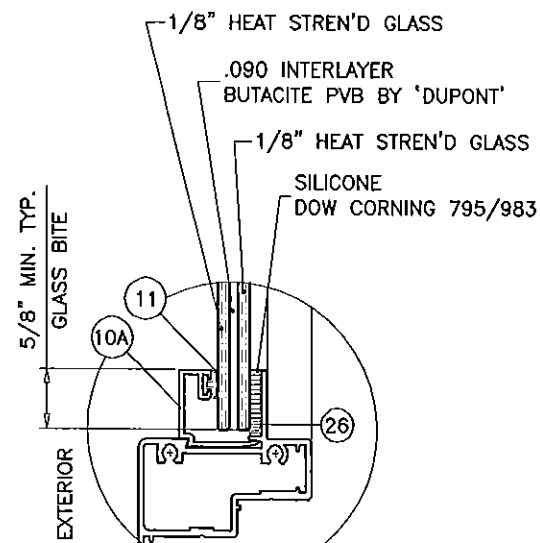
**E.S. WINDOWS, LLC**  
3550 N.W. 49 STREET  
MIAMI, FL. 33142  
TEL (305) 638-5151 FAX (305) 638-5158

Revisions:

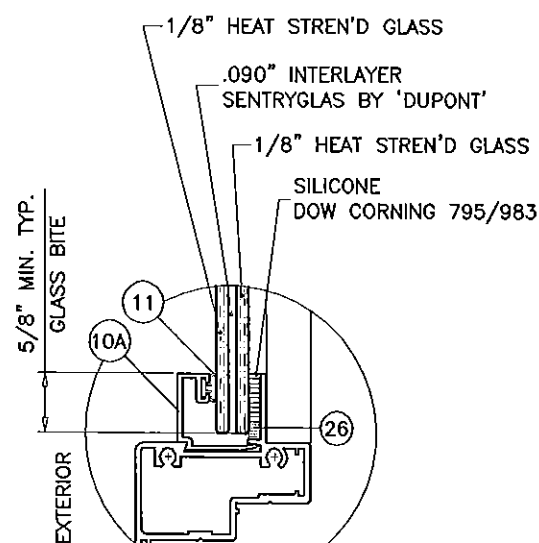
no	date	by	description
B	05.20.11		GENERAL REVISION
C	02.20.12		NO CHANGE THIS SHEET
D	10.29.14		UPDATED TO 2014 FBC
E	05.06.15		REV. PER PER COMMENTS

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dr. by: HAMID  
chk. by:

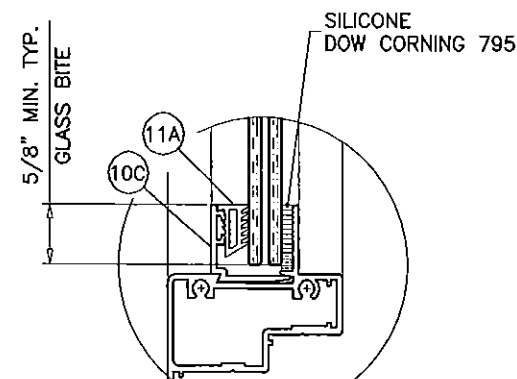
drawing no.  
**W08-08**  
sheet 2 of 10



GLASS TYPE 'A'

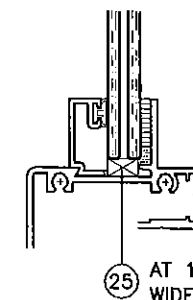


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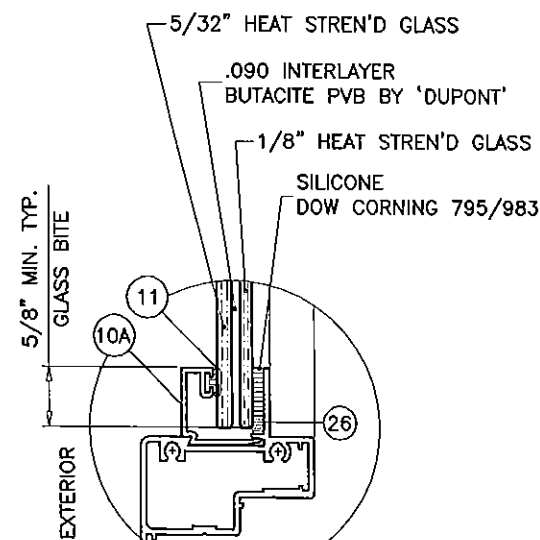


ALT. GLAZING OPTION

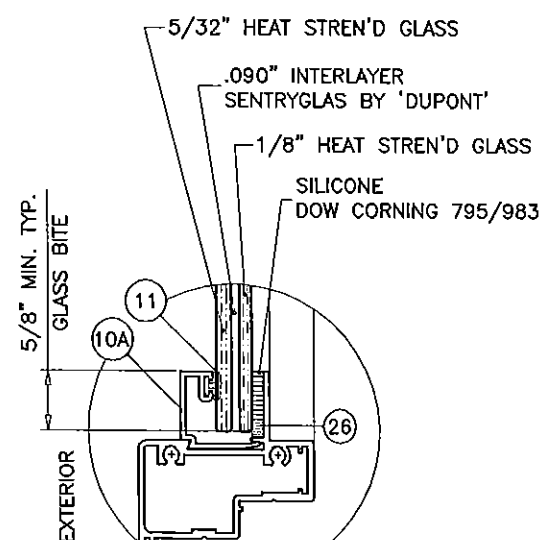
THESE GLAZING STOP CAN BE USED WITH GLASS TYPES 'A', 'B', 'C' & 'D'.



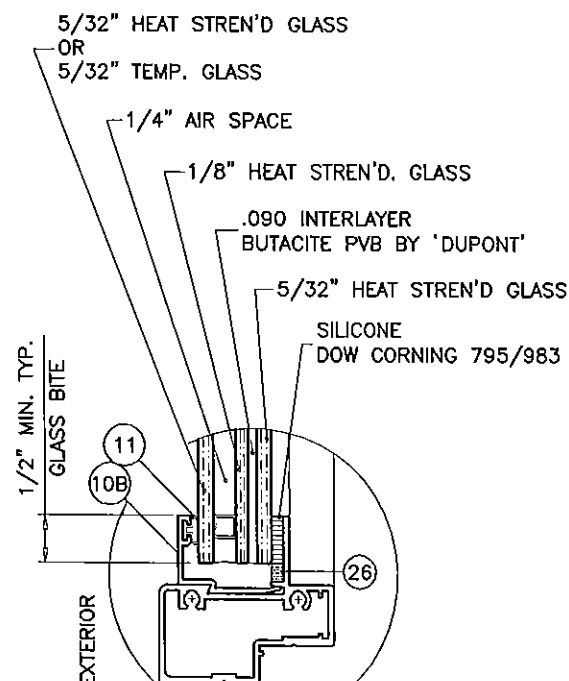
SETTING BLOCKS AT LAM. GLASS NOTCH GLAZING BEAD LEG TO CLEAR BLOCKS



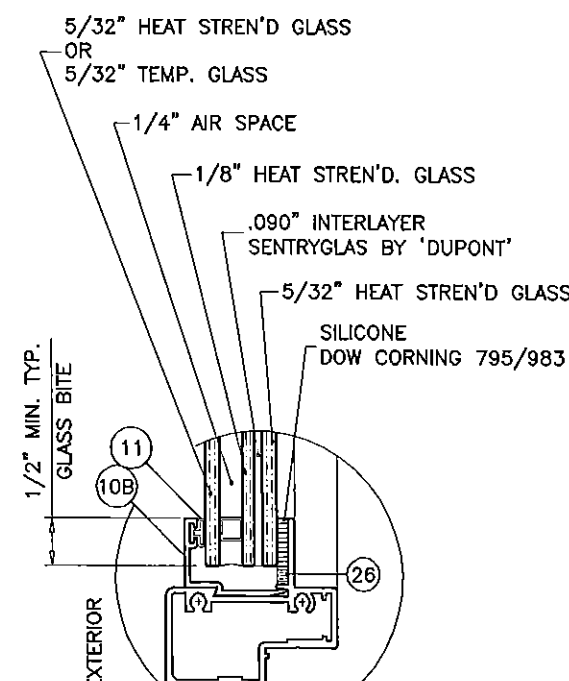
GLASS TYPE 'C'



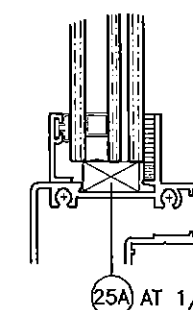
GLASS TYPE 'D'



GLASS TYPE 'E'



GLASS TYPE 'F'



SETTING BLOCKS AT INSUL. LAM. GLASS NOTCH GLAZING BEAD LEG TO CLEAR BLOCKS

### GLAZING OPTIONS

NOTE:  
TO QUALIFY FOR SMALL MISSILE IMPACT RATING  
EXTERIOR PLY OF GLASS TYPES 'E' & 'F' MUST BE TEMPERED.

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538

15-0129.05  
APR 13 2015  
MAY 10 8 2015

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No. 15-0129.05  
Expiration Date APR 13 2015  
By: Manuel Perez  
Miami Dade Product Control

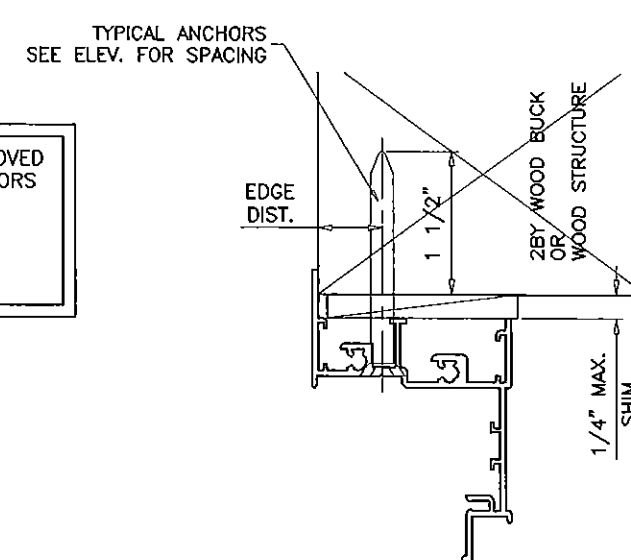
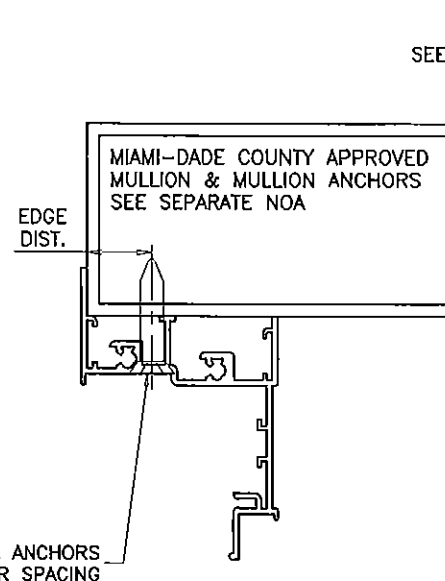
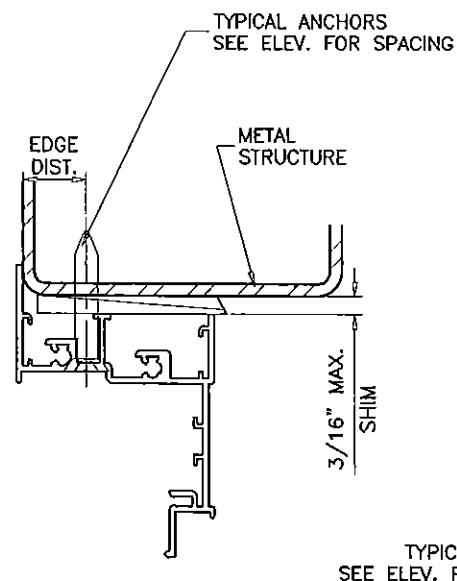
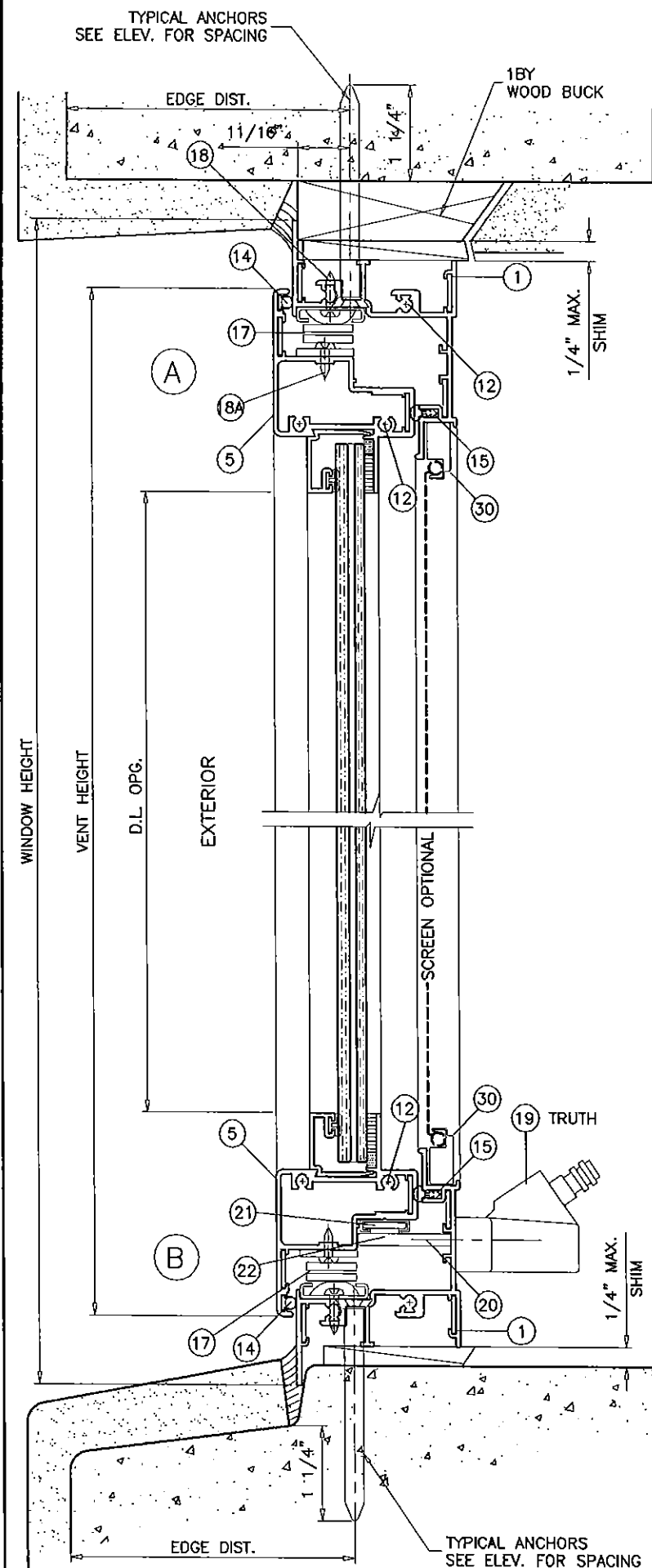
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1235 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL (305) 264-8100 FAX (305) 262-6978  
COMP-ANL\W08-08ESW

S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)  
**E.S. WINDOWS, LLC**  
3550 N.W. 49 STREET  
MIAMI, FL 33142  
TEL (305) 638-5151 FAX (305) 638-5158

no	date	by	description
B	05.20.11		GENERAL REVISION
C	02.20.12		GLAZING DETAIL REV.
D	10.29.14		UPDATED TO 2014 FBC
E	05.06.15		REV. PER RER COMMENTS

date: 01-23-08  
scale: 1/2" = 1"  
dr. by: HAMID  
chk. by:

drawing no.  
**W08-08**  
sheet 3 of 10



WOOD BUCKS AND METAL STRUCTURE NOT BY E.S. WINDOWS  
MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM  
AND TRANSFER THEM TO THE BUILDING STRUCTURE.

**TYPICAL ANCHORS:** SEE ELEV. FOR SPACING

**1/4" DIA. ULTRACON BY 'ELCO'** (Fu=177 KSI, Fy=155 KSI)  
INTO 2BY WOOD BUCKS OR WOOD STRUCTURES  
1-1/2" MIN. PENETRATION INTO WOOD

THRU 1BY BUCKS INTO CONC. OR MASONRY  
1-1/4" MIN. EMBED INTO CONC. OR MASONRY

DIRECTLY INTO CONC. OR MASONRY  
1-1/4" MIN. EMBED INTO CONC. OR MASONRY

**#14 SMS OR SELF DRILLING SCREWS** (GRADE 2 CRS)

INTO MIAMI-DADE COUNTY APPROVED MULLIONS (MIN. THK. = .090")

INTO METAL STRUCTURES

STEEL : 12 GA. MIN. (Fy = 36 KSI MIN.)

ALUMINUM : 1/8" THK. MIN. (6063-T5 MIN.)

(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

**TYPICAL EDGE DISTANCE**

INTO CONCRETE AND MASONRY = 1-1/2" MIN.

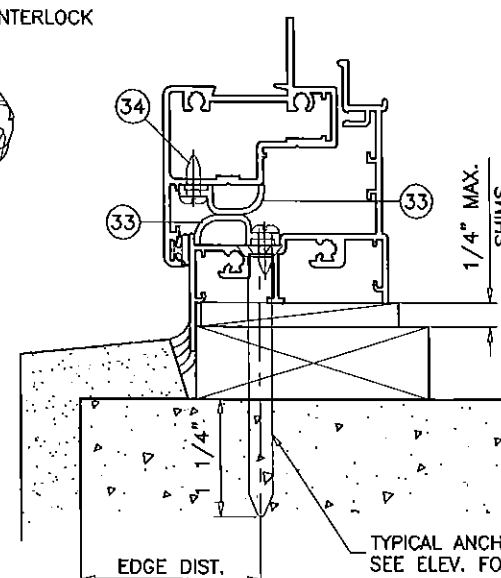
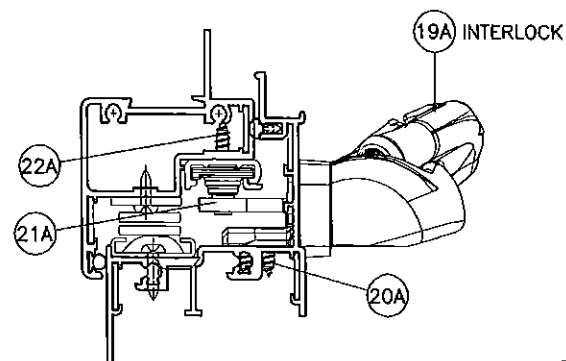
INTO WOOD STRUCTURE = 11/16" MIN.

INTO METAL STRUCTURE = 11/16" MIN.

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.

CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.

C-90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 2000 PSI MIN.



Engr: JAVAD AHMAD  
CML  
FLA. PE # 70592  
C.A.N. 3538  
MAY 08 2015

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Acceptance No. 15-0129.05  
Expiration Date April 3, 2018  
By *Manuel Jorg*  
Miami Dade Product Control

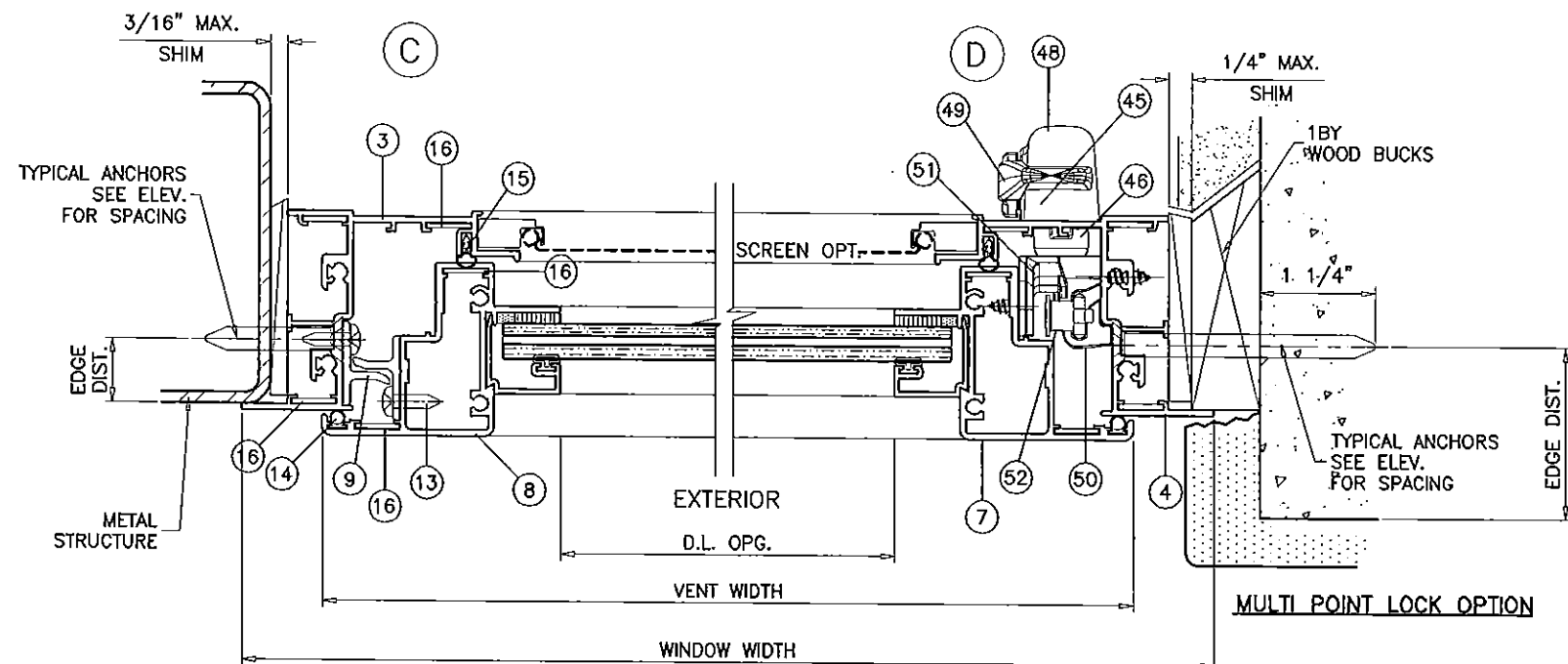
S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)  
E.S. WINDOWS, LLC  
3550 N.W. 49 STREET  
MIAMI, FL. 33142  
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	by	description
	A	02.18.09		NO CHANGE THIS SHEET
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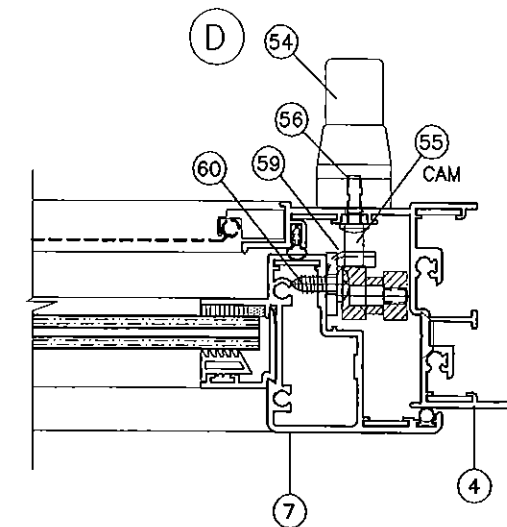
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dr. by: HAMID  
chk. by:

drawing no.  
W08-08  
sheet 4 of 10

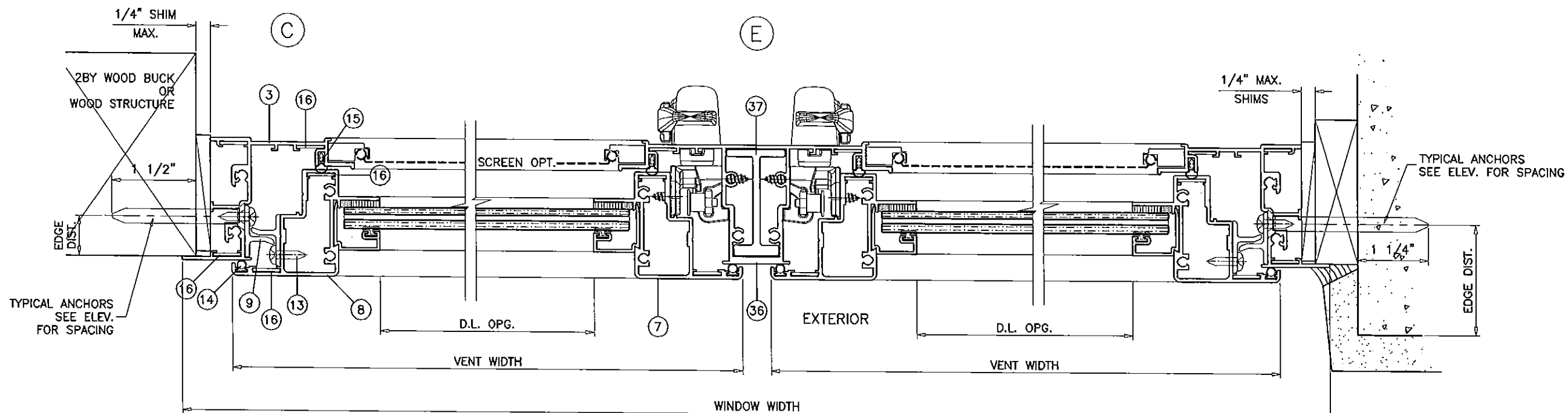
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1235 S.W. 87 AVE  
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COMP-ANL\W08-08ESW



SINGLE VENT WINDOWS



CAM LOCKS OPTION



DUAL VENT WINDOWS

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538

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Miami Dade Product Control

**afC**  
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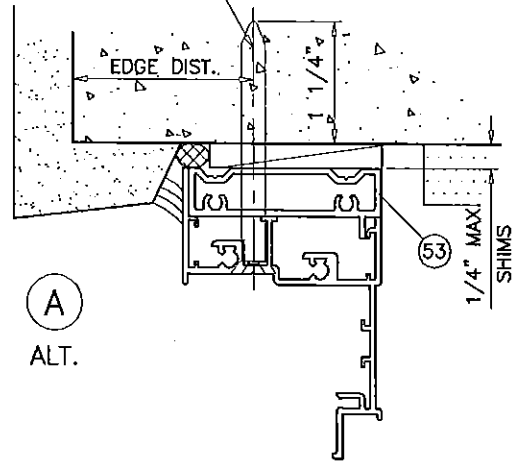
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dr. by: HAMID  
chk. by:

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**W08-08**

sheet 5 of 10

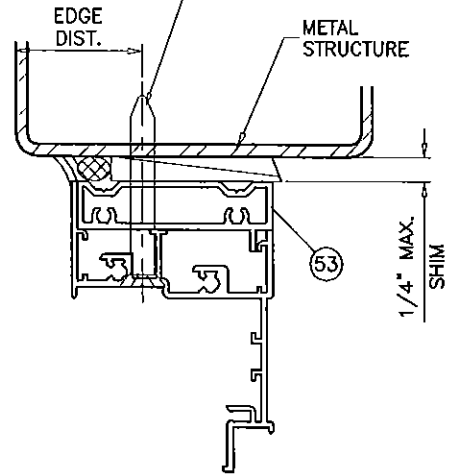


TYPICAL ANCHORS  
SEE ELEV. FOR SPACING



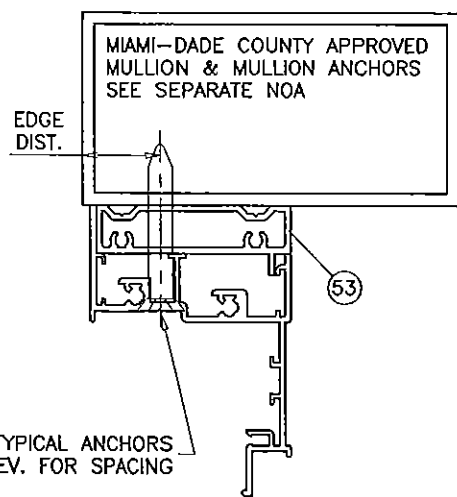
A  
ALT.

TYPICAL ANCHORS  
SEE ELEV. FOR SPACING



EDGE DIST.  
METAL STRUCTURE  
1/4" MAX. SHIMS

TYPICAL ANCHORS  
SEE ELEV. FOR SPACING



EDGE DIST.

MIAMI-DADE COUNTY APPROVED  
MULLION & MULLION ANCHORS  
SEE SEPARATE NOA

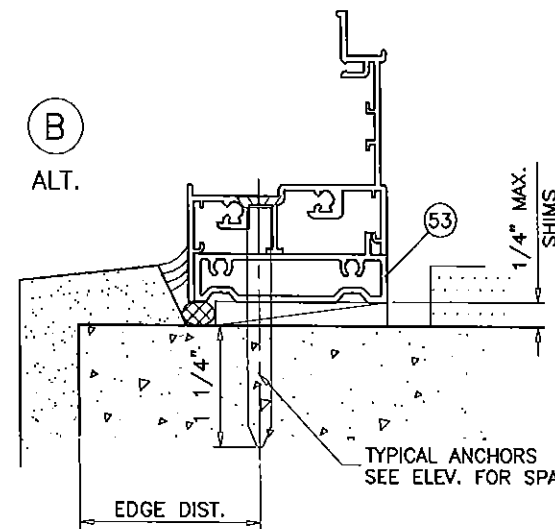
C  
ALT.

1/4" MAX.  
SHIMS

EDGE DIST.

TYPICAL ANCHORS  
SEE ELEV. FOR SPACING

B  
ALT.



EDGE DIST.

TYPICAL ANCHORS  
SEE ELEV. FOR SPACING

### INSTALLATION DETAILS WITH FLUSH FRAME ADAPTER

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538

MAILED 08 2015

PRODUCT REVISED  
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Expiration Date April 3, 2018  
By *Javad Ahmad*  
Miami Dade Product Control

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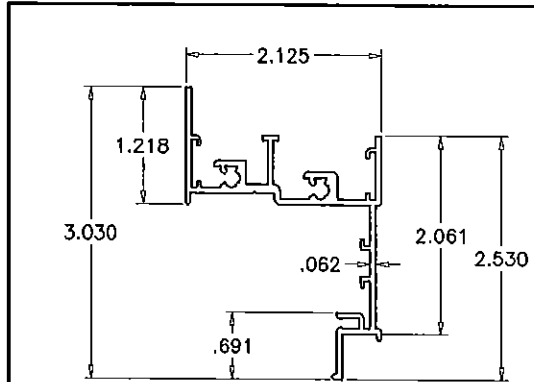
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**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1235 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
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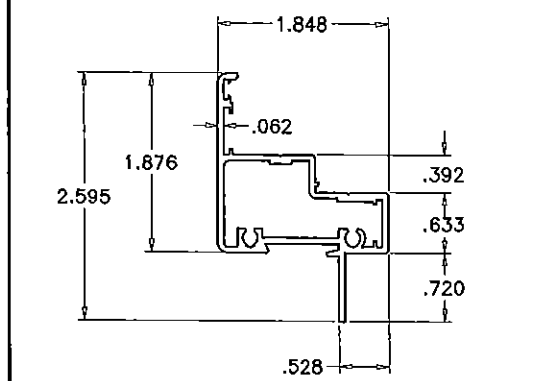
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chk. by:

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W08-08

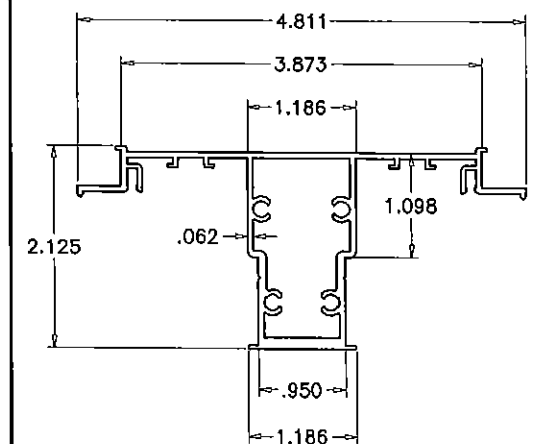
sheet 6 of 10



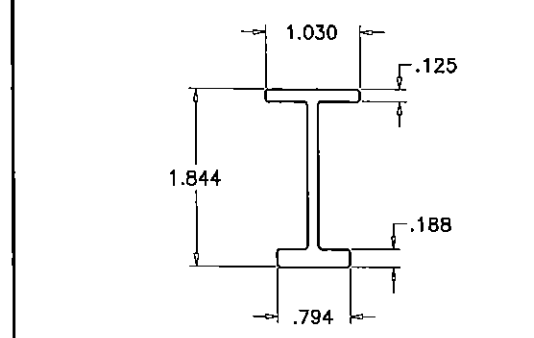
①②③④ FRAME



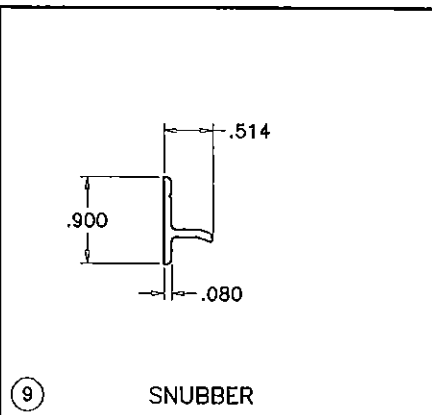
⑤⑥⑦⑧ VENT



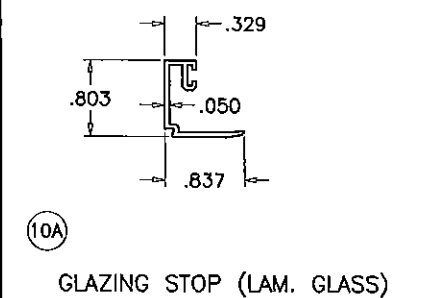
③⑥ IMPOST



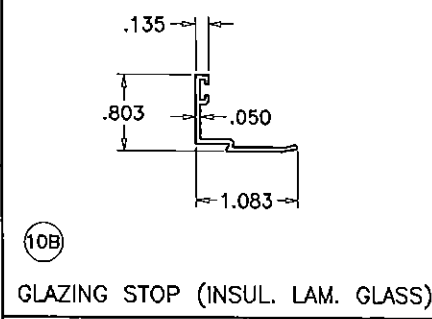
③⑦ IMPOST STIFFENER



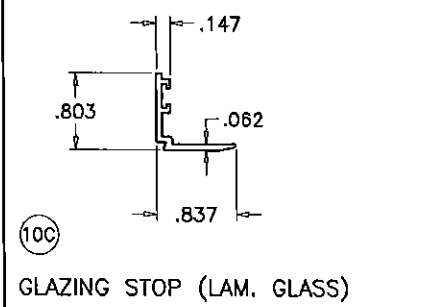
⑨ SNUBBER



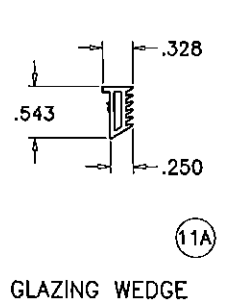
⑩A GLAZING STOP (LAM. GLASS)



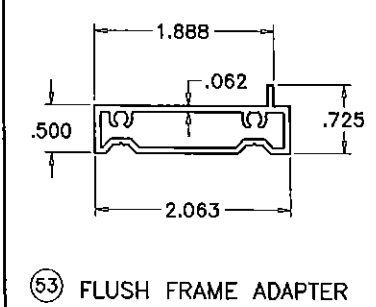
⑩B GLAZING STOP (INSUL. LAM. GLASS)



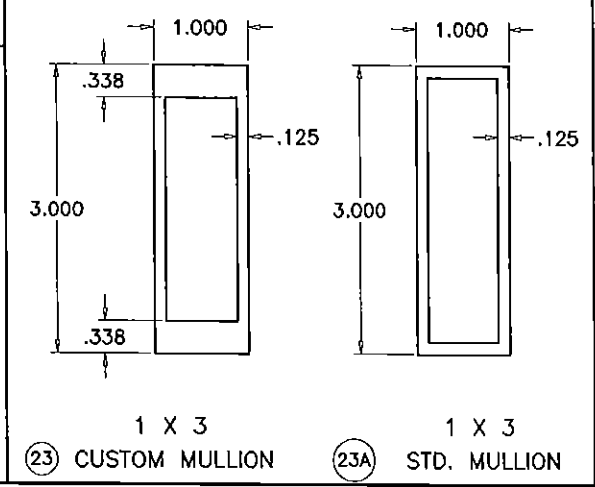
⑩C GLAZING STOP (LAM. GLASS)



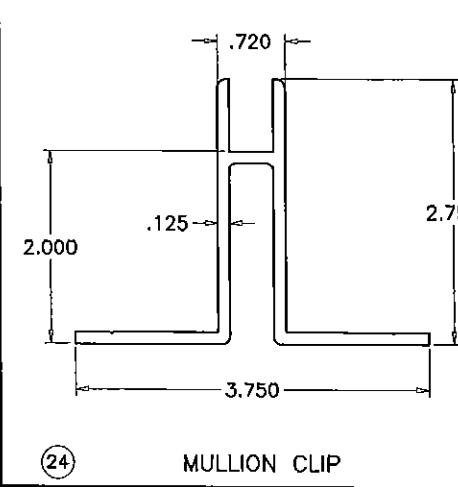
⑪A GLAZING WEDGE



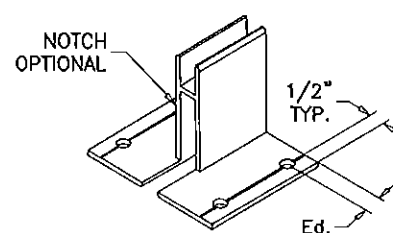
⑤③ FLUSH FRAME ADAPTER



②③ 1 X 3 CUSTOM MULLION ②③A 1 X 3 STD. MULLION




②④ MULLION CLIP



Engr: JAVAD AHMAD  
CML  
FLA. PE # 70592  
C.A.N. 3538  
MAY 08 2015

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Miami Dade Product Control



**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1235 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL. (305) 264-8100 FAX. (305) 262-6978  
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S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)

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date: 01-23-08

scale: 1/2" = 1"

dr. by: HAMID

chk. by:

drawing no.  
**W08-08**

sheet 7 of 10

ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	ES5001	1	FRAME HEAD	6063-T6	-
2	ES5001	1	FRAME SILL	6063-T6	-
3	ES5001	1/ VENT	FRAME JAMB-HINGE SIDE	6063-T6	-
4	ES5001	1/ VENT	FRAME JAMB-LATCH SIDE	6063-T6	-
5	ES5002	1/ VENT	VENT TOP RAIL	6063-T6	-
6	ES5002	1/ VENT	VENT BOTTOM RAIL	6063-T6	-
7	ES5002	1/ VENT	VENT SIDE RAIL-HINGE SIDE	6063-T6	-
8	ES5002	1/ VENT	VENT SIDE RAIL-LATCH SIDE	6063-T6	-
9	ES5004	2/ VENT	SNUBBERS, 2-1/2" LONG	6063-T6	-
10A	ES1103	AS REQD.	GLAZING BEAD (LAM. GLASS)	6063-T5	-
10B	-	AS REQD.	GLAZING BEAD (INSUL. LAM. GLASS)	6063-T5	-
10C	ES1008	AS REQD.	GLAZING BEAD (LAM. GLASS)	6063-T6	-
11	27-425	AS REQD.	GLAZING GASKET	EPDM	DUROMETER 60 SHORE 'A'
11A	ES1010	AS REQD.	GLAZING WEDGE	SOFT PVC	DUROMETER ±65 SHORE 'A'
12	-	AS REQD.	FRAME & VENT ASSEMBLY SCREWS	-	#10 X 1-1/2" PH SMS
13	-	2/ SNUBBER	SNUBBER INSTALLATION SCREWS	-	#8 X 1/2" PH SMS
14	E202	AS REQD.	OUTER WEATHERSTRIPPING (POLYPROPYLENE BASE, TPE BULB)	-	DUROMETER 65 SHORE 'A'
15	ES5005	AS REQD.	INNER WEATHERSTRIPPING	EPDM	DUROMETER 60 SHORE 'A'
16	PJS40-SS	AS REQD.	CORNER LOCK	ST. STEEL	SULLIVAN & ASSOCIATES
17	301SS	2/ VENT	4 BAR HINGES-HEAVY DUTY	-	TRUTH HARDWARE
18	-	3/ HINGE	HINGE MOUNTING SCREWS AT FRAME	-	#10 X 1/2" PH SMS
18A	-	4/ HINGE	HINGE MOUNTING SCREWS AT VENT	-	#10 X 1/2" PH SMS
19	23 SERIES	1/ VENT	SINGLE ARM OPERATOR (AT 8-1/2" FROM ENDS)	-	TRUTH HARDWARE
19A	NOVA	1/ VENT	SINGLE ARM OPERATOR (AT 8-1/2" FROM ENDS)	-	INTERLOCK
20	-	4/ OPER.	OPERATOR MOUNTING SCREWS	-	#10-24 X 3/8" PH SMS
20A	-	8/ OPER.	OPERATOR MOUNTING SCREWS	-	#8 X 1/2" FH SMS
21	30175	1/ OPER.	13-3/4" LONG TRACK	ST. STEEL	TRUTH HARDWARE
21A	-	1/ OPER.	OPERATOR TRACK	ST. STEEL	INTERLOCK
22	-	2/ TRACK	TRACK MOUNTING SCREWS	-	#10 X 3/8" PH SS SMS
22A	-	3/ TRACK	TRACK MOUNTING SCREWS	-	#8 X 1/2" FH SMS
23	-	AS REQD.	1X3 CUSTOM MULLION	6063-T6	-
23A	-	AS REQD.	1X3 STANDARD MULLION	6063-T6	-
24	-	AS REQD.	MULLION CLIP	6063-T6	-
25	27-372	2/ LITE	SETTING BLOCK, 7/16" X 3/16" X 3-1/2" LONG	EPDM	AT 6" FROM EACH END, DUROMETER 75±5 SHORE A
25A	-	2/ LITE	SETTING BLOCK, 5/16" X 5/8" X 4" LONG	EPDM	AT 6" FROM EACH END, DUROMETER 75±5 SHORE A
26	-	8/ LITE	TAPE SPACER (1/4" X 1/2")	FOAM	AT 6" FROM GLASS ENDS
30	-	OPTIONAL	5/16" BOX SCREEN	-	-
33	ES5009	2/ VENT	ANTI SAG SKATE, 2" LONG	NYLON/CELCON	M&M PLASTICS
34	-	2/ SKATE	SKATE MOUNTING SCREWS	-	#6 X 1/2" PHSMS
36	ES5003	1	IMPOST	6063-T6	
37	ES5010	AS REQD.	IMPOST STIFFENER	6063-T6	
45	CL01-0500	-	MULTI-POINT LOCK MECHANISM		INTERLOCK
46	-	-	LOCK FASTENER PLATE		-
47	-	2/ LOCK	LOCK FASTENER SCREWS		THREAD FORMING
48	CL01-2250-XXX	-	SNAP ON COVER		-
49	CL01-1050-XXX	-	SNAP ON HANDLE		-
50	-	-	GUIDE (ACETAL)		-
51	-	-	KEEPER (ACETAL)		-
52	-	-	LOCK BAR (304 ST/ST)		-
53	ES-5017	AS REQD.	FLUSH FRAME ADAPTER	6063-T5	OPTIONAL
54	-	1/ VENT	LOCKING HANDLE	-	SULLIVAN & ASSOC.
55	-	2/ VENT	LOCKING CAM (AT 11-1/2" & 50-1/2" FROM BOTTOM)	-	SULLIVAN & ASSOC.
56	-	2/ LOCK	LOCK MOUNTING SCREWS	-	#6-32 X 1/2 PH MS
57	ES5013	1/VENT	LOCK HANDLE/CAM CONNECTOR	-	1/4" X 1/2" ALUM. BAR
58	ES5011	2/ BAR	CONNECTOR SCREWS	-	CUSTOM
59	CS-200K-SS	2/ VENT	KEEPERS (AT 12" & 51" FROM BOTTOM)	ST STEEL	SULLIVAN & ASSOC.
60	-	2/ KEEPER	KEEPER MOUNTING SCREWS	-	#10 X 3/8" PH SMS

# SEALANTS:

ALL FRAME AND VENT CORNERS AND INSTALLATION SCREWS SEALED WITH CLEAR/ALUMINUM COLORED SEALANT.

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
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MAY 08 2015  
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COMP-ANL\W08-08ESW

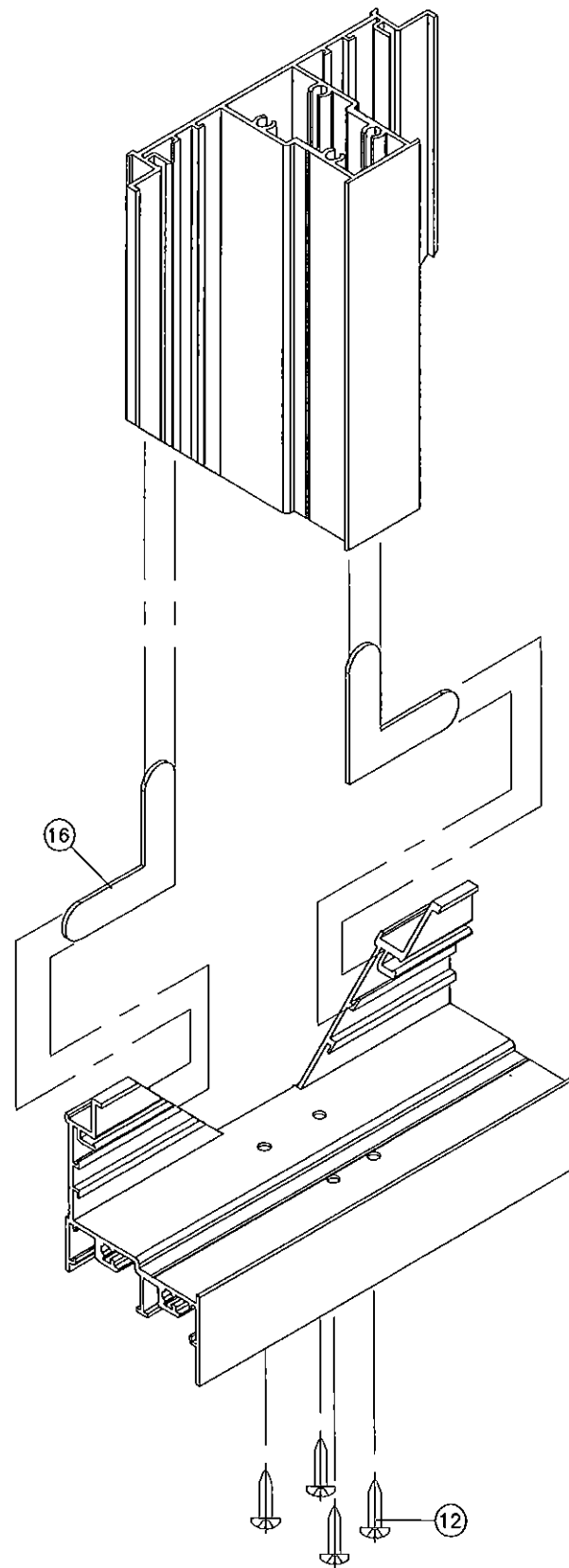
S-5000 ALUM OUTSWING CASEMENT WDW. (L.M.I.)  
**E.S. WINDOWS, LLC**  
3550 N.W. 49 STREET  
MIAMI, FL. 33142  
TEL. (305) 638-5151 FAX. (305) 638-5158

revisions:	no	date	by	description
	A	02.18.09		NO CHANGE THIS SHEET
	B	05.20.11		GENERAL REVISION
	C	02.20.12		GLASS SPACER ADDED
	D	10.29.14		UPDATED TO 2014 FBC
	E	05.06.15		REV. PER RER COMMENTS

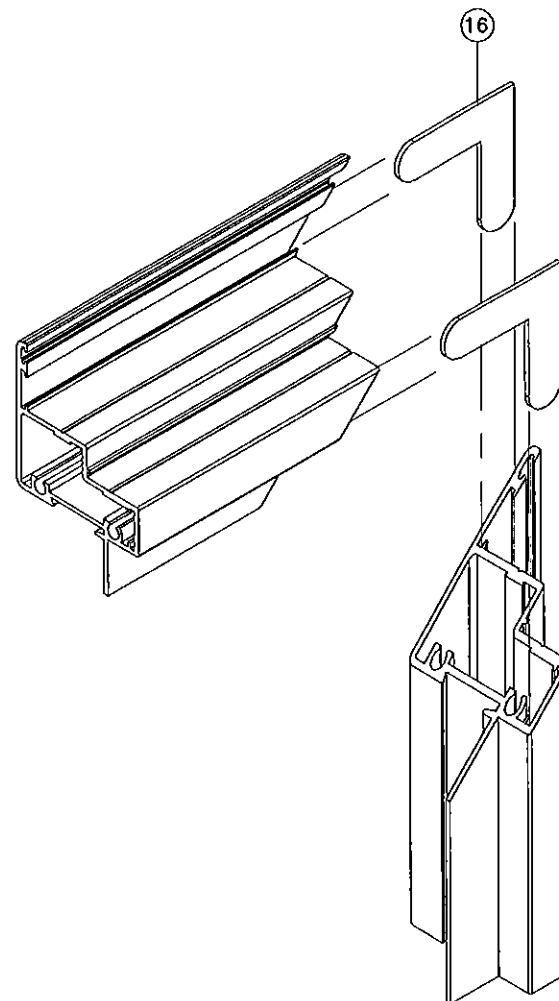
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dr. by: HAMID  
chk. by:

drawing no.  
**W08-08**

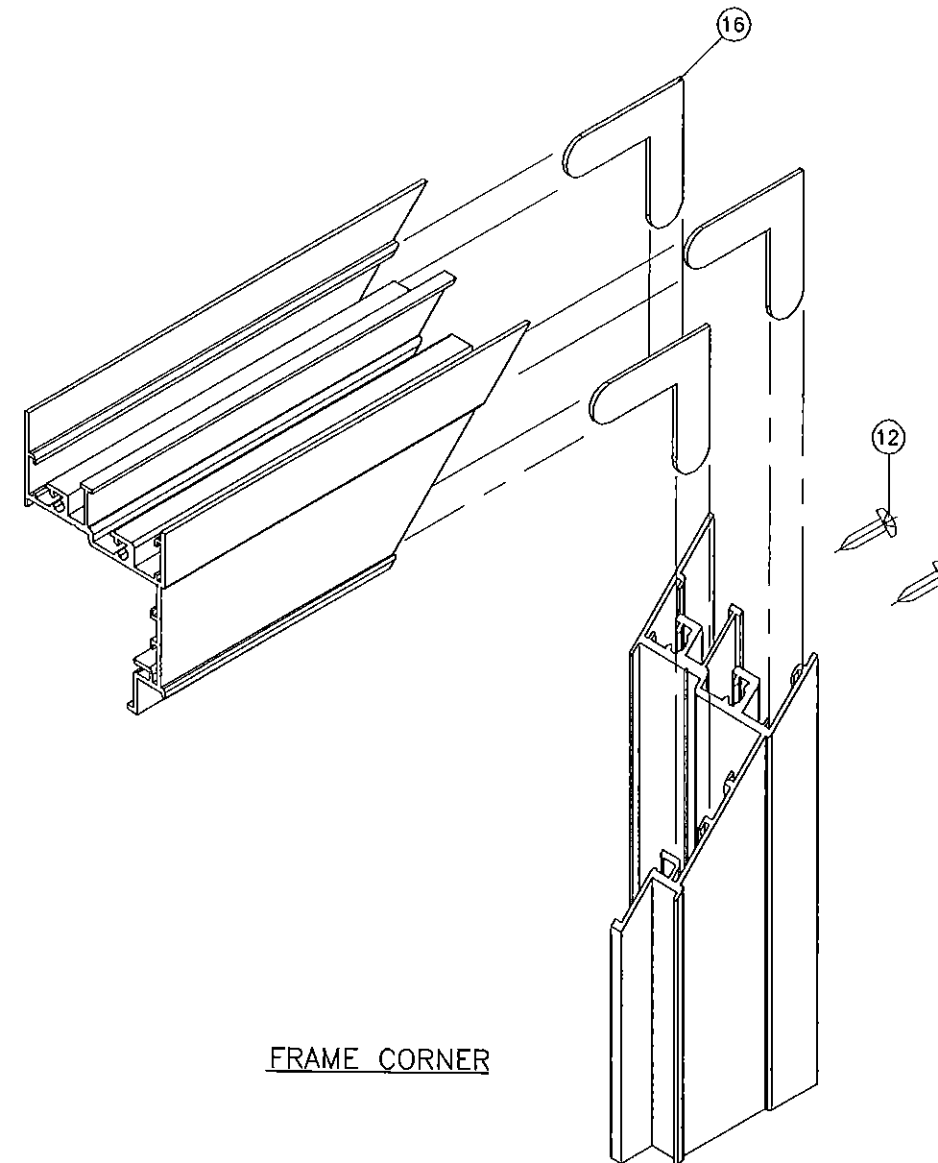
sheet 8 of 10



IMPOST CORNER



VENT CORNER



FRAME CORNER

Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3538

MAY 08 2015  
MAY 08 2015

PRODUCT REVISED  
as complying with the Florida  
Building Code  
Acceptance No 15-0129.05  
Expiration Date April 3, 2018  
By *Manuel Perez*  
Miami Dade Product Control

**af c**  
**AL-FAROOQ CORPORATION**  
ENGINEERS & PRODUCT DEVELOPMENT  
1235 S.W. 87 AVE  
MIAMI, FLORIDA 33174  
TEL. (305) 264-8100 FAX. (305) 262-6978  
COMP-ANL\W08-08ESW

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dr. by: HAMID  
chk. by:

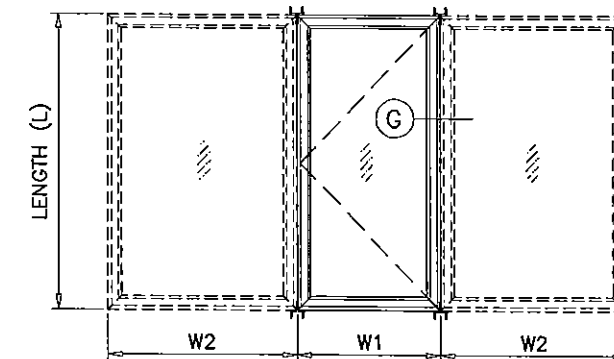
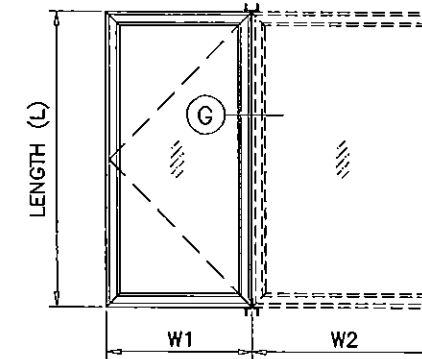
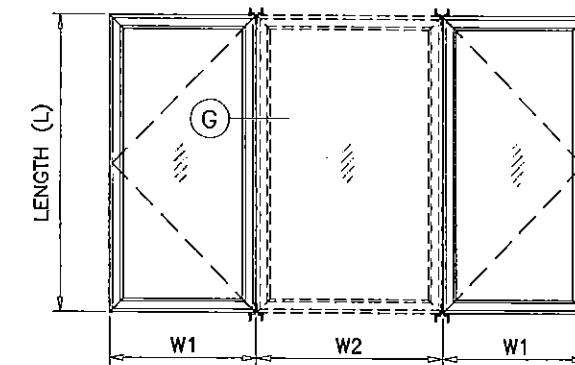
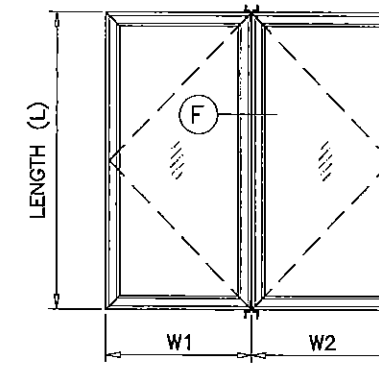
drawing no.  
**W08-08**

sheet 9 of 10

MULLION LOAD CAPACITY - PSF			
WINDOW DIMS.		1 X 3 STD. MULL	1 X 3 CUSTOM MULL
WIDTH (W)	LENGTH (L)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
26-1/2"	58"	90.0	90.0
37"		90.0	90.0
42"		90.0	90.0
45"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"		90.0	90.0
26-1/2"	63"	90.0	90.0
37"		90.0	90.0
42"		90.0	90.0
45"		90.0	90.0
48"		90.0	90.0
53-1/8"		90.0	90.0
62"		90.0	90.0
26-1/2"	74-1/4"	90.0	90.0
37"		90.0	90.0
42"		82.5	90.0
45"		78.6	90.0
48"		75.4	89.1
53-1/8"	76"	71.0	89.2
26-1/2"		90.0	90.0
37"		84.2	90.0
42"		76.4	90.0
45"		72.8	90.0
48"		69.7	87.4
51"		67.1	84.2

MULLION LOAD CAPACITY - PSF			
WINDOW DIMS.		1 X 3 STD. MULL	1 X 3 CUSTOM MULL
WIDTH (W)	LENGTH (L)	EXT.(+) INT.(-)	EXT.(+) INT.(-)
30"	54"	90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		90.0	90.0
60"		90.0	90.0
62"		90.0	90.0
30"	60"	90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		90.0	90.0
60"		90.0	90.0
62"		90.0	90.0
30"	66"	90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		90.0	90.0
54"		90.0	90.0
59"		90.0	90.0
30"	72"	90.0	90.0
36"		90.0	90.0
42"		90.0	90.0
48"		83.6	90.0
54"		78.4	90.0
59"		74.0	89.0
30"	76"	90.0	90.0
36"		86.1	90.0
42"		76.4	90.0
48"		69.7	87.4
51"		67.1	84.2

## CLIPPED MULLIONS

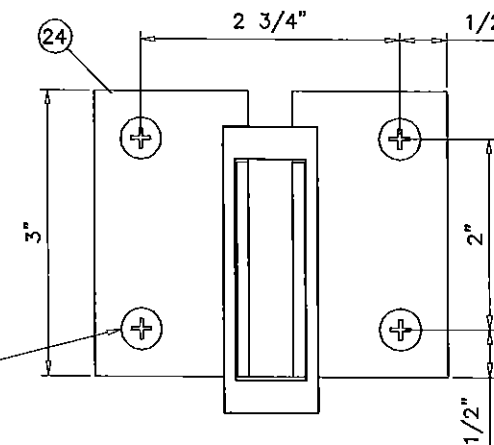


### TYPICAL ELEVATIONS

SIDE BY SIDE WINDOWS

SIDE BY SIDE APPLIES TO TWO OR MORE WINDOWS

$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$



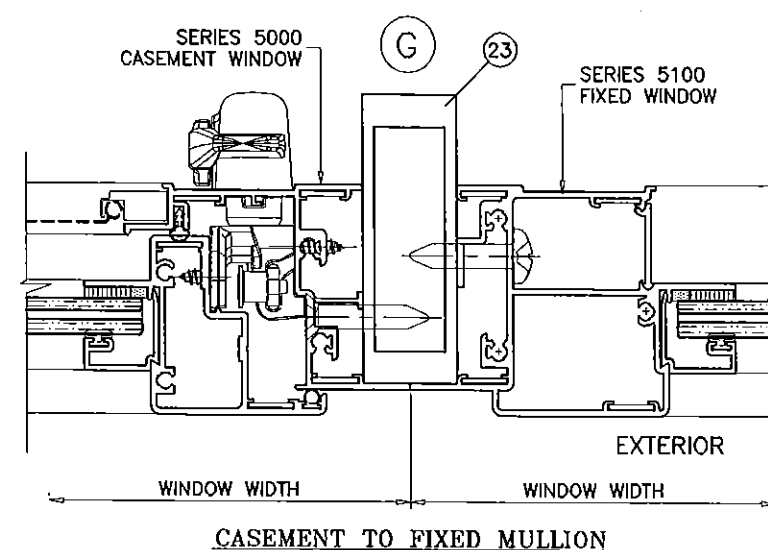
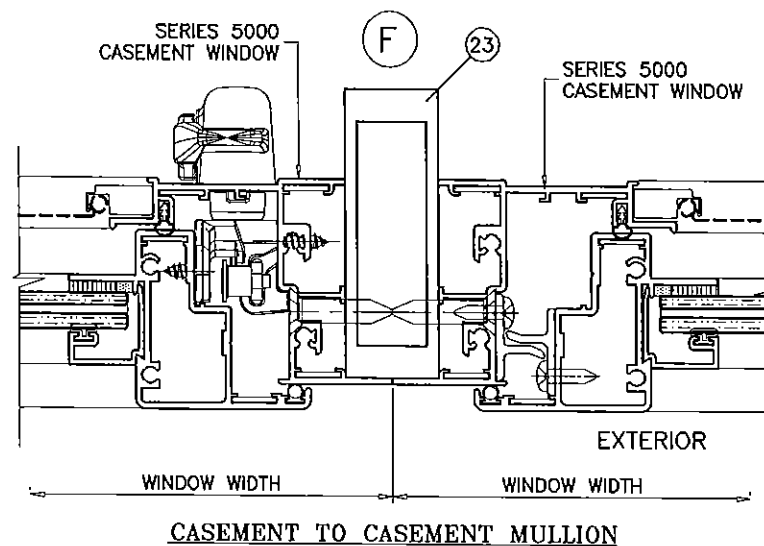
TYPICAL ANCHORS  
4 PER CLIP  
SEE SHEET 4  
FOR DESCRIPTION

### EDGE DISTANCES FOR MULLION CLIPS

INTO CONCRETE AND MASONRY = 2" MIN.  
INTO WOOD STRUCTURE = 11/16" MIN.  
INTO METAL STRUCTURE = 11/16" MIN.

### NOTES:

1. USE CHART ON THIS SHEET FOR SIDE BY SIDE CONNECTION CAPACITY OF WINDOW MULLION.
2. FOR CASEMENT WINDOW CAPACITY SEE SHEET 2 OF 10.
3. FOR FIXED WINDOW CAPACITY SEE SEPARATE NOA.
4. LOWER VALUES FROM STEPS 1, 2 OR 3 WILL APPLY TO ENTIRE SYSTEM.



Engr: JAVAD AHMAD  
CIVIL  
FLA. PE # 70592  
C.A.N. 3568

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MAY 08 2015

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By *Manuel Perez*  
Miami Dade Product Control

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sheet 10 of 10